PLINIUS

9100

Stereo Integrated Amplifier

Instruction Manual

REFINED AUDIO EQUIPMENT

MANUFACTURED WITH PRIDE IN NEW ZEALAND

CONGRATULATIONS on your decision to become the proud owner of this Plinius 9100 Integrated Amplifier.

This manual has been prepared to help you understand the operation of your amplifier, and to provide information about its design and the variety of ways it may be used.

We have designed and manufactured this amplifier to reproduce faithfully and accurately, your favourite music. With a little care and a full understanding of the operating recommendations in this manual, your Plinius 9100 Integrated Amplifier will provide years of high-quality, trouble-free performance.

Serial Number: .....

Date of Manufacture: .....

Final Test Certified By: .....

IMPORTANT: **PLEASE TAKE THE TIME TO READ THIS MANUAL THOROUGHLY BEFORE USING YOUR AMPLIFIER.**

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PRECAUTIONS

Please take special note of the following precautions before operating your new amplifier:

- The Plinius 9100 Integrated Amplifier can deliver in excess of 120 watts into 8 ohms. This amplifier is also capable of a very large peak current delivery.

- The Plinius 9100 Integrated Amplifier operates in Class AB. It is capable of generating heat that could have an adverse effect on other electronic equipment, furniture, etc. DO NOT leave flammable material on the amplifier whilst running, as this could pose a serious fire risk.

- This amplifier operates at hazardous voltage levels. There are some alterations that may be made by you, the owner. However, we recommend that any work requiring removal of the lid be referred to a suitably qualified and experienced service technician.

- DO NOT attempt to connect any input of this amplifier to its own outputs.

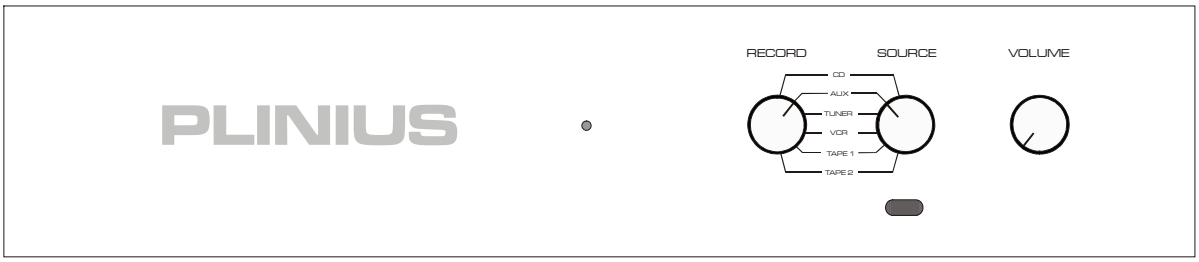
- DO NOT earth any output terminal or connect any of these terminals together without following the instructions in this manual or seeking qualified assistance.

- DO NOT place this amplifier in any position where liquids, or any foreign material may accidentally enter it.

- DO NOT connect any voltage source, short circuit, earth/ground or appliance (other than suitable high fidelity loudspeakers) to the amplifier output terminals.

AMPLIFIER FEATURES – FRONT PANEL

The front of the Plinius 9100 Integrated Amplifier incorporates all the facilities you will require on a daily basis.



Front Panel Layout Showing Volume Knob, Record And Source Selectors, And Display LED

DISPLAY LED

An LED on the front panel indicates that the power is on. When first switched on, the display LED will pulse for ten seconds - this is an initialisation sequence, after which the LED remains lit during the time the amplifier is powered on. Whenever mute or a remote button is pressed, the LED will dim.

SOURCE SELECTOR

This rotary switch enables selection of any of the six different inputs available on the back panel. This selection is fed to the speakers via the output posts on the rear of the amplifier.

RECORD SELECTOR

This rotary switch allows recording of any of the six different inputs available on the back panel. Note that when recording, the source that is being listened to will not be interfered with. For example, it is possible to be listening to the CD input whilst recording from the TUNER input. Two tape decks can be connected and dubbing in either direction is possible.

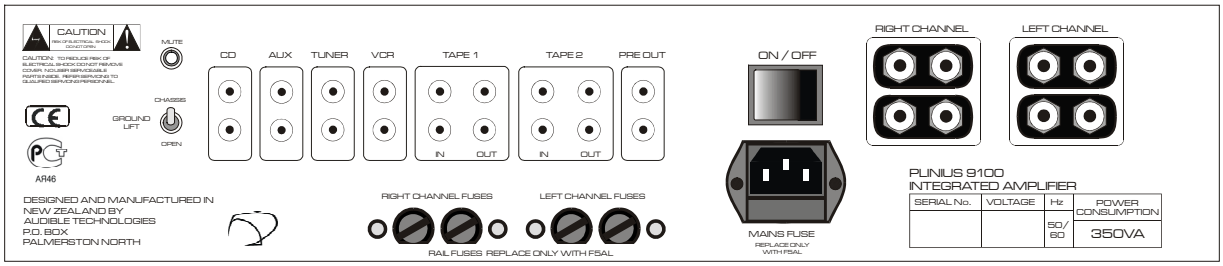
VOLUME CONTROL KNOB

The volume control is an ALPS motorised unit that will accurately convey the source signals to the power amplification stage of the Plinius 9100. The knob can be adjusted manually or with the remote control supplied. When using the remote control to alter the volume level, briefly press the button to make small adjustments, or hold the button down to continuously adjust the volume.

AMPLIFIER FEATURES – REAR PANEL

This panel incorporates all terminals for connecting the input signals from your CD player, tuner, etc, and the outputs to the loudspeakers and mains supply.

Please remember that your Plinius 9100 Integrated Amplifier is a high quality electronic instrument capable of an exceptional level of performance. Be sure that you understand your system's requirements fully before you make any connection to this amplifier.



REAR PANEL SHOWING INPUT AND OUTPUT TERMINALS, MUTE SWITCH, MAINS SWITCH AND MAINS SOCKET.

MAINS SWITCH

The heavy-duty rocker switch in the centre of the panel turns the Mains/Line Power to the amplifier ON or OFF. The amplifier draws a moderately high current when switched on, so it is not good practice to rapidly turn the Mains switch on and off repeatedly.

INPUT TERMINALS

The input terminals for your Plinius 9100 Integrated Amplifier are easily accessible along the top of the rear panel, with the right (red) inputs along the top. These standard RCA terminals are for use with unbalanced signals from CD, auxiliary, tuner, video, and two tape decks. Consult your **PLINIUS** dealer for further advice if required.

OUTPUT TERMINALS

Connections for the loudspeakers are provided on the right hand side of the rear panel. Two parallel pairs of five way binding posts for each channel are fitted – these provide ease of use with bi-wiring and multiple cables requiring a large contact area.

TAPE OUTPUTS

These RCA outputs are situated next to the tape RCA inputs, and are provided to interface to a pair of line level recording devices. The position of the record selector on the front panel determines from which device a recording is being made. As these tape outputs are always 'live', both can be used to record the chosen signal at any time.

MUTE SWITCH

The mute switch enables disconnection of the output, without the need to use the remote control. When the amplifier is in mute, the LED on the front panel will dim.

GROUND LIFT SWITCH

This switch allows the signal ground to be disconnected from the chassis. In some installations a hum loop may exist due to duplicate ground paths from different equipment. Use this switch to remove the connection from 0V to ground thus allowing some flexibility in your particular set-up.

PRE OUT OUTPUT

The Pre-Out connection is provided to enable the Plinius 9100 to be connected to an external power amplifier. The signal from this output is line level, and as such is not amplified by the power stage of the Plinius 9100.

MAINS POWER CORD IEC SOCKET

This connector is where the mains supply cable from your wall connects to the amplifier. You will notice that a fuse holder is mounted within this connection, and it holds a mains fuse to provide surge and overload protection for your amplifier.

RAIL FUSES

These tubular fuse holders house the positive and negative rail protection fuses. Depress and turn anti-clockwise to open. An LED is fitted next to each fuse holder to indicate a blown fuse.

INSTALLATION AND OPERATION

PLACEMENT AND VENTILATION

Your Plinius 9100 may operate at a moderately high temperature when being driven hard. The ideal location is upon a rigid stand, or floor mounted away from direct contact with any temperature sensitive materials or deep pile carpets. Ventilation through and around the amplifier should also be kept unimpeded, so ensure that the heat vents (slots in the lid and base) are not covered or restricted in any way.

The Plinius 9100 design incorporates a very high level of mechanical de-coupling of the input and output. It can however still be influenced by acoustical feedback in the operating environment. The use of acoustic cones, or a suitably spiked amplifier stand or table, may further enhance the performance of this amplifier. Consult your **PLINIUS** dealer for further advice if required.

MAINS VOLTAGE CONNECTION

Firstly, check that the mains supply voltage printed on the rear of this amplifier is similar to the mains supply voltage in your area. If in doubt, please consult your **PLINIUS** dealer.

Mains supply power connection is via the supplied plug-in lead. A standard IEC socket connects the mains power at the amplifier end, while a local mains plug is required at the wall end.

The wiring code used inside all Plinius product is:

Green to Earth/Ground
Blue to Neutral
Brown to Phase/Live

Should a 'local' plug need fitting to the wall end of the lead, ensure that a suitably qualified service technician wires the plug correctly.

IMPORTANT: **DO NOT POWER UP YOUR AMPLIFIER UNTIL YOU HAVE CONNECTED YOUR INPUT/OUTPUTS CORRECTLY FOR YOUR SYSTEM, (AS EXPLAINED IN THE NEXT SECTION).**

INPUT / OUTPUT CONNECTION

It is important that you connect your loudspeakers (outputs) and source components (inputs) to the Plinius 9100 Integrated Amplifier correctly to ensure the amplifier is not damaged, and sounds its best with your system. Now that you have read and familiarised yourself with the connections on the back of the amplifier, as covered in the previous section, we will describe in detail the way in which you can connect the amplifier to your system.

Connect your tuner, CD player, tape decks, etc, to the corresponding RCA inputs on the back of the Plinius 9100. Make sure you connect the red coded cable to the red RIGHT RCA input, and the black (or white) cable to the black LEFT RCA input. Also make sure the RCA connectors are a snug fit and are inserted all the way in.

Next, connect your loudspeaker wires to the output posts. Connect your right loudspeaker (i.e. the one on the right of you when seated in your normal listening position) to the right output terminals, ensuring that the red positive (+) terminal is connected to the red terminal on your loudspeaker. Do the same with the black or negative (-) terminals.

RECORDING MUSIC

In order to record music to tape, or some other line level recording device, these devices will need to be connected to the tape 1 and tape 2 outputs. Turn the record selector on the front panel to the input you wish to record from, and the amplifier will now send signal to both tape 1 and tape 2 outputs. Note that the volume control does not adjust the recording level - this is done at the recording device itself.

USING PRE OUT

A line level output is provided on the back of the Plinius 9100. If you wish to use the Plinius 9100 as a pre-amp only, or to send signal to another amplifier, fit the interconnect cable to the pre out outputs. Note that the pre out connections provide signal from whatever the source selector knob is currently set to.

LOUDSPEAKER TERMINATION QUALITY

Quality of the connections must be examined to ensure that high-performance, trouble-free operation is enjoyed. Check that the connections are tight but do not over tighten. If bare wires are used make sure that no loose strands of wire short across the other terminals or the amplifier chassis. When using plugs such as bananas, be sure to use good quality plugs with a firm fit.

BI-WIRING

Bi-wiring uses two pairs of loudspeaker cables for each channel loudspeaker. You will notice that the rear panel of your Plinius 9100 has two pairs of output terminals for this purpose. When using bi-wires, always connect positive (+) to positive (+) and the same for the negative (-) terminals.

PHASING (OR POLARITY)

It is important to achieve good stereo imaging in your listening room. By observing the wiring instructions above, each power amplifier/loudspeaker combination should be in phase. If you experience poor stereo image and/or a lack of bass, check that the loudspeaker wiring has been connected correctly. We recommend that you use one of the easily obtainable 'test discs' to help you ensure both phasing and channel orientation are correct. If in doubt, consult your **PLINIUS** dealer for advice.

Naturally it is also important to make sure all the leads carrying signals for the RIGHT channel loudspeaker are connected to the RIGHT input to the amplifier from your preamplifier or CD player etc. Signals for the LEFT channel should be wired in a similar fashion.

CONNECTING THE MAINS SUPPLY

Now that your Plinius 9100 Integrated Amplifier is configured correctly, the mains cable can be plugged into the IEC socket on the back of the amplifier. Re-check the speaker cables are connected correctly. Turn on the power switch on the rear panel. The display LED will pulsate for ten seconds as the internal microprocessor allows the internal circuitry to stabilise before opening the mute circuit. You can now enjoy your new Plinius 9100 Integrated Amplifier.

WARM-UP PERIOD

You will find that the Plinius 9100 will become noticeably 'purer' in sound after being on for a period of time. We usually recommend waiting at least 24 hours before expecting the best quality of sound reproduction from your amplifier. Also, as the Plinius 9100 uses very little power while on, we suggest leaving the unit turned on so that it will always be at it's sonic best.

9100 FEATURES

REMOTE CONTROL

Provided with your Plinius 9100 is a three function remote control. The two buttons at the top of the remote adjust the volume level, and the button below switches the amplifier in and out of mute. Two AAA batteries power the remote, and these are replaced by removing the two posi-drive screws on the rear face of the remote that hold the battery compartment in place. The bottom end of the remote is now free to slide down for access to the batteries. Replace the two batteries, taking care to refit the new ones with correct polarity.

TAPE LOCKOUT PROTECTION

On most tape decks, any signal recorded is sent to the tape outputs so that the signal level of the recording can be monitored. Should the user accidentally try to record the tape decks own output, feedback howl usually results. The Plinius 9100 Tape Lockout feature prevents this situation from damaging your system speakers by muting the power amplifier.

FUSE PROTECTION

When any rail fuse is damaged one or more fuse warning LED's will light. These LED's are located next to the fuse that has blown. To replace the fuse, steady the amplifier, then firmly push in the round fuse cap with your fingers. When the cap cannot push in any further, rotate the cap anticlockwise (to the left) until it comes to a stop. Release inward pressure on the fuse cap and it can now be removed from the amplifier. If any of the rail fuses need to be replaced, do so only with 5 amp normal blow fuses.

To re-fit the fuse, insert the fuse and gently turn it as far as possible anticlockwise (to the left). Now push the fuse cap in firmly, then turn clockwise (to the right) until it comes to a stop. Release inward pressure on the cap and the fuse will be fitted securely.

IMPORTANT: DO NOT FIT A FUSE WITH A HIGHER RATING.

Note that fuse failure may indicate a severe problem. Check all speakers and speaker cables for damage/short circuit, etc. Should the amplifier continue to suffer rail fuse failure, contact your **PLINIUS** dealer.

MAINS/LINE FUSE

A Mains/Line fuse is fitted within the IEC socket on the rear of the amplifier. A small drawer at the bottom of this socket may be removed (after the IEC plug is removed) by levering it out with a flat blade screwdriver. The fuse fitted should be rated at no greater than 5 amps slow blow.

IMPORTANT: DO NOT FIT A FUSE WITH A HIGHER RATING.

In the unusual event that this fuse should blow, you must first establish the cause of this failure (such as power surges, damaged mains cable, etc.) before replacing the fuse with one of the same rating and type. Should the amplifier continue to suffer mains fuse failure, contact your **PLINIUS** dealer.

LOUDSPEAKER SELECTION

Your Plinius 9100 Integrated Amplifier is designed for use with high fidelity loudspeakers. It should not be used to operate with any other type of appliance or equipment.

Choice of loudspeakers is one of personal taste, providing the chosen loudspeakers are suitable for use with your amplifier. Be certain that your loudspeakers can handle most of the rated output power of this amplifier. You may find loudspeaker specifications confusing or misleading, so you should discuss this with your audio dealer prior to purchase. As a general rule, the use of high power (200 Watt RMS or greater) loudspeakers is recommended and desirable. However, our experience indicates that medium to low power loudspeakers (100 to 200 Watt RMS) are quite often suitable for use on this amplifier, provided the volume is maintained at a level where no distortion is audible.

Impedance of the loudspeaker load is important to ensure the rated performance of this amplifier. Any combination of loudspeakers may be used, but the total average impedance load for each channel should be within a range of 4 to 8 ohms. Again, if you have doubts about the impedance of your loudspeaker configuration, we recommend you speak to your **PLINIUS** dealer.

SPECIFICATIONS

120-WATTS RMS PER CHANNEL INTO 8 OHMS.

BOTH CHANNELS DRIVEN FROM 20Hz TO 20kHz AT LESS THAN 0.2% TOTAL HARMONIC DISTORTION.

- **FREQUENCY RESPONSE:** 20Hz to 20kHz ±0.2dB. 0dB at 0Hz and -3dB at 70kHz.
- **DISTORTION**: Typically <0.05% THD at rated power. 0.1% THD and IM worst case prior to clipping.
- **CURRENT OUTPUT:** 20A short duration peak per channel. Fuse protected.
- **SLEWING:** 50V/μs.
- **HUM & NOISE:** 90dB below rated output 20Hz to 20kHz unweighted.
- **INPUT SENSITIVITY:** 290mV RMS for rated output at 1kHz.
- **INPUT IMPEDANCE:** 47kΩ.
- **INPUT OVERLOAD:** 5V RMS.
- **RATED PRE OUT LEVEL:** 1.5V RMS into 47kΩ or higher.
- **PRE OUT SOURCE IMPEDANCE:** Typically 1.5kΩ.
- **PRE OUT MINIMUM RECOMMENDED LOAD:** 47kΩ.
- **TAPE OUTPUT LEVEL:** Unity Gain at 200Ω. Tape loop muting at 5V RMS input.
- **HEIGHT:** 105mm (4")
- **WIDTH:** 450mm (17 3/4")
- **DEPTH:** 400mm (15 3/4")
- **WEIGHT:** 10kg (22lbs)

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